

TRANSFER OF RELBUNIUM SPHAGNOPHILUM (RUBIACEAE)

AND R. MAZOCARPUM TO GALIUM

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The subject of the present paper is a tiny creeping perennial (Fig. 1 B) of mosslike size and habitat, which may actually be common in wet meadows and about seeps and springs at high altitudes in southern Mexico and Guatemala (Fig. 1 A). It has, however, been infrequently collected, probably owing to its inconspicuous nature and the high and relatively inaccessible places which it inhabits.

The plant was first named and published as a Relbunium, which it is not, since the flowers, instead of being sessile upon an involucre, as in Relbunium, are pedicellate (Fig. 1 C,D,E). Two species were named by Greenman, R. sphagnophilum in 1898 and R. mazocarpum in 1905. The difference between the two lies exclusively in the presence (R. mazocarpum, Fig. 1 E) or absence (R. sphagnophilum) of tubercles on the fruits.

Of the 8 collections that I have seen, including the types, only 2 have smooth fruits, whereas 6 have tuberculate fruits. Although it is quite possible that the plants with smooth fruits are merely a trivial or occasional form within one inclusive natural species, the evidence at present is insufficient to justify that assumption. I therefore propose to consider them for the present as two varieties of a single species.

A formal treatment follows:

Galium sphagnophilum (Greenm.) Dempster, comb. nov.

Tiny creeping perennial, growing among mosses and other minutiae in wet alpine meadows and on moist banks near springs, at 1800-3700 meters. Leaves and stems essentially glabrous, or sometimes with a few hairs; leaves 4 to a node, 1-2 mm. long, 1/6 - 1/3 as long as internodes, spindle-shaped or obovate, apparently 1-nerved, tapering to a petiolar base and to the acute apex, tipped with a long hair; flowers perfect, usually solitary on short leafy lateral branches, which are largely included; corollas greenish-white, rotate, hispid externally; fruits dry, the carpels smooth or tuberculate, nearly spherical, the pedicels very short.

Var. sphagnophilum.

Relbunium sphagnophilum Greenm. Proc. Am. Acad. 33: 468. 1898.

Type from Sierra de Clavellinas, Oaxaca, at 2770 m, Pringle 5812 (GH!)

Fruits smooth.

Additional collection studied. Mexico: near Zerezo and below Parque Nacional El Chico, Hidalgo, at 3000 m, Moore 3127 (GH).

Var. mazocarpum (Greenm.) Dempster, comb. nov.

Relbunium mazocarpum Greenman, op. cit. 41: 250. 1905. Type from barranca below Trinidad Iron Works, Hidalgo, Mexico, at 1675 m, Pringle 8834 (GH; isotypes MEXU!, UCI, US!). The locality is near Honey, in Puebla.

Fruits tuberculate.

Additional collections studied. Mexico: Honey, Puebla, 7000 ft, Barnes & Land 530 (F); Nevada de Toluca, Mexico, Rose & Painter 7927 (NY). Guatemala: valley of Río de las Violetas, north of Nebaj, 5800-6000 ft, El Quiché, Proctor 25046 (LL); top of Cerro Chemalito, Sierra de los Cuchumatanes, 3100-3150 m, Huehuetenango, Steiermark 49913 (F); vicinity of Chemal, summit of Sierra de los Cuchumatanes, 3700-3750 m, Steiermark 50279 (F).

Abstract:

Relbunium sphagnophilum Greenman and R. mazocarpum Greenman belong properly to the genus Galium, as shown by the presence of pedicels. Although their single difference, smooth or tuberculate fruits, may eventually be shown to be taxonomically unimportant, the two taxa are presently proposed as varieties of a single species: Galium sphagnophilum (Greenm.) Dempster, with var. mazocarpum (Greenm.) Dempster.

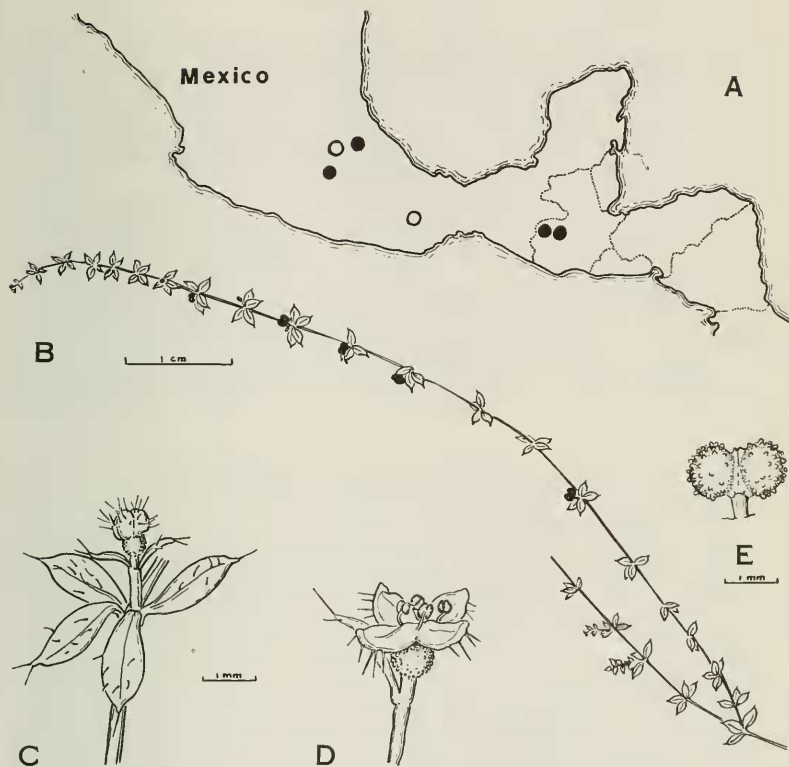


Fig. 1. Galium sphagnophilum. A, Map showing var. sphagnophilum in white circles, and var. mazocarpum in black circles. B-E, ssp. mazocarpum: B, portion of shoot with fruits, showing included branchlets, x 1-1/3; C, node with leaves and flower bud, showing pedicel and pair of bracts, x 7; D, flower, with one bract aborted, x 7; E, mature fruit, showing tubercular surface, x 7. B-D from Proctor 25046; E from Barnes & Land 530.